

California Environmental Protection Agency

Air Resources Board

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Fact Sheet #5 Monitoring for Asbestos

Note: The costs quoted in this Fact Sheet are approximate only for sample analysis and do not reflect the costs to obtain a sample or deliver the sample to a laboratory.

- How can you test for asbestos content in bulk material? To determine the percent of asbestos for a rock pile or a gravel surface such as roadways and parking lots, use Air Resources Board (ARB) Test Method 435. The method calls for collecting an unbiased sample of material from several locations of a pile or surface, combining those samples, and then crushing the composite sample. A portion of the sample is then analyzed using polarized light microscopy to determine the percentage of asbestos in the bulk sample. Laboratories doing the analysis should be certified by the National Institute of Standards and Technology's National Voluntary Laboratory Accreditation Program (NIST/NVLAP). The analytical costs is approximately \$50 to \$100 per sample when results are desired within 72 hours.
- " How can you test for asbestos in the ambient (or outdoor) air? A sampler consisting of a pump and cassette holder containing a filter is used to determine the amount of asbestos in the ambient air. Asbestos in the air is trapped onto the filter as air is drawn through the filter. The filter samples are analyzed by counting the number of asbestos fibers on the filters using transmission electron microscopy (ref. Federal Register, 40 CFR Part 763). The concentration of asbestos in the air is determined by relating the amount of asbestos trapped on a filter to the volume of air pumped through the sampler. Analytical cost ranges from \$50 to \$100 per sample for results within 72 hours.

For samples to be comparable to each other it is important to use an appropriate sampling method. In addition, laboratories doing the analysis should be certified by the NIST/NVLAP. If you need further information regarding a sampling method or certified laboratory, please contact the Monitoring and Laboratory Division of the ARB at (916) 322-3726.

- How can you test for asbestos in the workplace? NIOSH Method 7400 can be used to estimate the asbestos concentration in the workplace. This method requires a small battery operated pump to collect samples on a filter cassette. Analysis is done by phase contrast microscopy (PCM) which does not differentiate between asbestos and non-asbestos fibers. Method 7400 is appropriate only for measuring asbestos indoors. Analytical cost is about \$10 to \$30 per sample for results within 72 hours.
- " How can you test for asbestos in your home? See Fact Sheet #4.
- Where can I get a list of laboratories who can perform bulk and ambient analyses? Please contact the National Voluntary Laboratory Accreditation Program at (301) 975-4016 (website: http://ts.nist.gov) or the American Industrial Hygie ne Association at (703) 849-8888 (website: http://www.aiha.org) for a list of laboratories.